Empowering Chefs to Disrupt the 'Disruptors': A Diametrical Dilemma for Mindful Learning

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Abstract: In an increasingly busy world, disruption of many kinds is inherent in the activities of modern living. In our lengthy and global food chain, this causes disturbance to the food supply, the food environment, the food producer, the food product, the consumer, public health and more recently the world climate (Wilson, 2020). The extent of the impact of this current change on the professional kitchen and the adaptation required to meet such disturbance, provides the landscape for this paper. For the professional chef, survival in this competitive work environment may require 'disruptive innovation' (Christensen et al. 2015), while mindlessness of the disruptor may be detrimental. This paper discusses how culinary educators, through pedagogy, can enable chef students not only meet these needs but also facilitate the exploration of a personal approach to the challenge. Mindfulness according to Langer (2000, p.220) is a flexible state of mind, that enables active engagement with the present, noticing change and resulting in a more sensitive and skilful response to the challenge. Engaging in mindful learning avoids limiting mind-sets (Langer, 2000, p.220) instead, as a reflective practice; it deepens understanding and increases the connection and interrelatedness of the subject matter. This paper explores the potential of the Langerian mindfulness approach in culinary education, to 'disrupt', and thus empower chefs maintain personal awareness and be skilful amidst change. It juxtaposes the common negative interpretation of disruption with that of mindful-focused valuable disruption. Some possible applied learning opportunities, for culinary students at varying levels of study, will be devised and discussed.

Disruption involves an action that interferes and brings about changes to the traditional way of doing things. Traditionally the professional kitchen, its organisation, cuisine and practices, have been influenced by Chef Auguste Escoffier and all of these, form the foundation of the classical training of chefs. Escoffier's influence goes back to the 19th Century in France when restaurants became a new institution for the great cuisines of the court, a place for refined dining outside the home (Pitte, and Moode, 2000). However, according to Spang (2020, p.ix), 'restaurants are no longer what they were'. Change has occurred in the use of the cuisine, presentation styles, menu approaches, culinary language used and kitchen management. These changes along with the growth of the 'foodie culture' has resulted in the reconfiguration of consumer appetites (Spang, 2020, p.xx). While the success of modern restaurants using and fusing ethnic cuisines is prevalent in 2020, Wilson (2019) attributes the change in diner's practices from classical French tradition to the consumer's need for less formal and cheaper eating out establishments, to migration and world travel. Whilst chefs are re- learning age-old skills like pickling and preservation, globally, societal changes and technology are impacting food availability, the diet, eating and culinary approaches. Considering that it took thousands of years to get from a hunter-gatherer society to one based on farming, now the speed of change is a significant disruptor to the rhythm of life and what we are eating (Wilson, 2109).

Of great concern is the rise in the consumption of ultra-processed foods across the globe and the impact of this on gastronomy and health (Wilson, 2020). It could be argued that the annual focus on global food trends creates an over emphasised spotlight on the trend alongside a disconnect between the ingredients used, their origin and the degree of processing. In the UK the number of vegans has quadrupled between 2014 and 2019 (The Vegan Society, 2020). This rise in veganism is a disruptor for the food industry as a whole. The creation of a strong awareness of environmental issues linked to meat production has resulted in 48% of the overall UK consumers reducing consumption of animal products as a good way to lessen humans' impact on the environment (Minitel, 2020). Consumers are now reassessing their meat consumption with many adopting a flexitarian approach to the foods they eat. The adoption of these new eating habits are mirrored in the disruption. Despite the increased utilisation of digital media to promote food and eating experiences, in general, the intimate role of food and dining in daily life, is in decline. One signal of this disruption is in the daily routine of working populations, where the 'lunch hour' is no longer expected to be part of the normal working day. Time for eating and what we are eating, rather than being defined as a mealtime in our routine, is now according to Wilson 'out of sync' and is 'now a thin ribbon that runs throughout the day' (Wilson, 2019, p.149).

Disruptive Innovation

To survive in this rapidly changing industry, chefs, be it as chef patron, head chef, sous-chef or chef de partie, are challenged to meet these ongoing disruptors. This survival may require 'disruptive innovation' (Christensen et al. 2015). The theory of disruption was first proposed by Bower and Christensen in 1995. A disruptive innovator is

one who defends a disruptive challenge (Christensen et al. 2015). From a business perspective, disruption is a process whereby a smaller company with fewer resources which is focused on overlooked segments of the market is able through innovation, to successfully challenge an established company who is primarily chasing higher prices and profits. When mainstream customers start adopting the new offerings in volume, disruption is said to have occurred. The disruptive theory does not dictate action, but rather focuses on making strategic choices between taking a sustaining path and taking a disruptive one. Strengthening relationships with customers along with creating a new focus on the growth opportunities that arise from disruption is recommended (Christensen et al. 2015). In the challenge of meeting the disruption, Christensen et. al.'s word of caution is that disruption is a process and takes time. (Christensenet.al. 2015). In 2015, King and Baatartogtokh aware that Christensen's theory of disruption from 1995 had never been tested in academic literature, challenged the usefulness of the theory of disruption by closely examining its core elements and its applications. Their key findings were that threats faced by business cannot be understood from a single view point (King and Baatartogtokh, 2015), as there is no substitute for skill of careful fundamental analysis of the disruption (King and Baatartogtokh, 2015). However, the theory of disruptive innovation is a good reminder of the potential pitfalls and should be considered a warning rather than a prediction of action (King and Baatartogtokh, 2015).

Education as an Agent of Change

According to Giroux (2015) educators need a 'pedagogy of disruption' that demands a critical and engaged interaction with the world to give rise to a public pedagogy of 'wakefulness'. He questions what it would mean to define the university as a pedagogical space that disrupts, inspires and energises individuals to be agents of change in society. Such a pedagogy requires educators, rather than being defensive in the face of change and controversy, to be fearless and have a willingness to engage publicly through teaching that is rigorous, self-reflective and committed to the practice of freedom and the critical sensibility to private and public issues.

Is higher education however capable of promoting learning for change as proposed by Giroux? How sustainable is the theory of disruptive innovation in a time where there is rapid, sweeping and long-lasting change altering the planet's environment, causing profound shifts in demographic makeup and economic fabric, with many, in many aspects of living, increasingly focused on the United Nations' Sustainable Development Goals (SDG's). From a sustainable development point of view UNESCO (2014) emphasises the critical role of this educational approach for action amidst change. Education must empower individuals with the knowledge, skills and value, as well as instil in them a heightened awareness to drive change. In contrast to the disruption theory for business as proposed by Christensen et al. (2015), UNESCO (2017) believes that education is key to creating a new environmentally friendly mind-set, whereby decision making is based on long-term sustainable development, rather than short-term financial gains. Their Education for Sustainable Development (ESD) programme therefore empowers people to change the way they think and work towards a sustainable future. Furthermore, the United Nations Economic Commission for Europe ESD Competence Framework (UNECE, 2011) highlights holistic approaches, envisioning change and achieving transformation, as the skills needed by educators (Balsiger et al. 2017).

The learning that results from this type of teaching was referred to as 'transformative learning' in the 70's in the work of Jack Mezirow, whereby the learning that is triggered by crises and disruptors, reveals the meaning of our perspectives, prompts critical reflection, invites experimentation for a new meaning and leads to assimilation (Balsiger et al. 2017, p.357). Zajonc (2006, pg.1) agrees with Mezeriow on our need to convert information into meaningful knowledge using a 'way of knowing' and to balance sharpening of our intellects with the systematic cultivation of our hearts (Zajonc, 2006, pg.3). An educational focus such as this, goes beyond information, works deeper, transforms the container of consciousness and makes it more supple and complex (Zajonc, 2006). Transformative education involves a degree of introspection on the self, prompted by significant changes in lived experience. Such transformation begins 'when a person withdraws from the world of established goal to unlearn, reorient and chose a fresh path' McWhinney and Markos (2003, p.16). Balsiger et.al. (2017) suggests however that fostering this type of learning in third level requires institutional change and the orchestration of liminality and mindfully transforming learning environments.

Mindful learning

Introspection of the self can take many forms in daily life and for many, may be linked to self-care. Minitel (2020) reported an evolution in how consumers are now approaching what self-care truly means to them, specifically with a self-care focus for home life, fitness and spending. Conversely there is no mention of self-care in the work environment. A crucial part of making sense of experiences and practising self-care, involves becoming mindful of how feeling and emotion impact our well-being (Concannon et.al. 2020). Looking through this lens of well-being, the personal sustainability of the chef amidst change, needs focus as an area of self-care within the professional work environment.

The teaching pedagogy used during culinary training is key to making this a reality for the chef professional. While

other teaching approaches may be used for various aspects of a chef's training, the use of a pedagogy that uses mindfulness, provides a pathway for deep learning. Jon Kabat Zinn describes mindfulness as 'paying attention in a particular way; on purpose in the present moment, non-judgementally' (1994, p.4). The term mindful learning was drawn from the concept of mindfulness by Langer (1989) as a lens through which to explore mindfulness in teaching and learning (1997). According to Langer 'being mindful is the simple act of drawing novel distinctions. It leads us to greater sensitivity to context and perspective and ultimately to greater control over our lives' (2000, p.220). A mindful approach to an activity has three elements, continuous creation of new ideas, being open to new information and an awareness to other perspectives. It requires being actively engaged in the here and now, not engaging with distraction and ignoring unhelpful self-talk. In contrast, the three elements of a mindlessness approach are: being trapped in old ways, on automatic behaviour that does not pick up signals or change, and viewing the world from a single perspective (Langer 1997). This latter approach results in decisions that rely on our past, unaware of alternative options leaving us stuck in a singular view (Langer, 2000). Sternberg (1997) however challenges her underestimation of the role of automatic behaviour in cognitive learning. One interesting point by Langer, is that at times, we all can be mindful especially when we encounter something new or novel but when we think we know something, there is a greater tendency to view it mindlessly (Langer, 2000). Paying attention therefore to the changes in reality, forces the person to stay in the present moment, be sensitive to the environment resulting in multiple perspectives in problem solving (Langer and Moldoveanu 2000). In the same way, having the ability to practice and maintain this level of awareness is empowering when faced with change. From a learning perspective she leads her approach by juxtaposing our beliefs and our mindsets in relation to learning. She argues that quite often the mindsets held regarding learning, encourage mindlessness while learning requires full attention (2000). 'Most teaching unintentionally fosters mindfulness, facts are typically presented as closed packages, without attention to perspective' (Langer, 2000, p.221). Mindfulness of how information 'looks different from different perspectives' (Langer, 2000, p.221) gives rise to the awareness of uncertainty in facts, while ignoring perspectives results in a tendency 'to confuse the stability of our mindsets with the stability of the phenomenon' (Langer, 2000, p.221). She views the latter as a fixated view as it ignores that fact that nothing remains the same, everything changes from moment to moment. This in turn impacts the learning potential.

To further explain this approach, Langer argues that mindful learning addresses and debunks three myths about learning. The first of these myths is that 'the basics should be learned so well that they become second nature' (Langer, 2000, p.221). She is adamant that this encourages rote learning, and mindlessness. Furthermore, she argues that when people educated in this way, are faced with a challenge or task they haven't done before, they frequently believe they cannot do it (Langer, 1997). If a mindful approach is applied in learning, the information learned will naturally have creative uses in the future (Langer and Piper, 1987), and in challenging situations 'the perception of a solution's being possible increases enormously' (Langer, 1997, p.5). In particular, she disputes the traditional approach to learning skills, where the skill is broken down into small pieces, practiced until it is 'perfect'. She questions this approach (Langer, 2000, p.222) and contends that is gives rise to 'doing it without thinking' (Langer, 1997, p.10). This results in 'overlearning' as we are 'freezing the understanding of the skill' (Langer, 1997, p.13) and the smaller components of the activity are lost (Langer, 1997, p.18). Consequently, in her view, this ensures 'mediocrity' and 'deprives the learner of maximising their own potential for more effective performance' (Langer,1997, p.14) and the enjoyment of performing the activity. Instead she proposes a mindful approach to learning a skill, where the learner is focused on the present and aware, open to novelty, actively noticing differences, contexts and multiple perspectives. This heightens their awareness to ongoing change. Learning a skill in this way ensures that the 'basic skills and information, guide our behaviour in the present, rather than run it like a computer programme' (Langer, 1997, p.23).

The second myth about learning which she challenges is that 'to pay attention to something, we should hold it still and focus on it' (Langer, 2000, p.222). Langer disputes this way of 'paying attention' because such a continuous fixated focus is difficult to maintain. As previously mentioned, 'paying attention' is an important element of mindfulness (Kabat-Zinn, 1994, p.4). Because 'mindfulness creates a rich discriminatory detail' (Langer, 1997, p.23), in the approach of mindful learning, Langer suggests the attention, while it is on the object, should be mindfully focused on different aspects of the object. Along with this being easier to do 'people remember more about the target of their attention when they attend to it mindfully (Langer, 2000, p.222).

The role of gratification in the learning process is linked to the third myth of learning challenged by Langer. This last myth she says is that 'it is important to learn how to delay gratification' (Langer, 2000, p.222). As conscious educators we are aware of the importance of giving students feedback on learning as soon as possible after the learning activity. However, in this case, what Langer is referring to is the gratification the learner gains through participating in the learning activity. She argues that when learners are mindfully engaged in the learning activity, 'the experience tends to be positive' (Langer, 2000, p.222). While Sternberg (1997) agrees with Langer on this point with regard to making learning fun, he gives cognisance to the fact that there is also the need to teach that rewards come to those who wait.

In summary the Langerian mindful learning approach involves inviting students to pay attention, noticing differences, change, and new elements that were not part of what they were looking at or doing initially.

Mindful learning and creativity

Creativity may be defined as 'the production, conceptualisation, or development of novel and useful ideas, processes and procedures' (Shalley et.al. 2000, p.215). Hassed and Chambers (2014) illustrate the interconnectedness between mindfulness and creativity. When stillness connects to the intelligence beneath the mind, creativity arises. Langer's approach to learning is based on her ongoing research in higher education, since 1989. Davenport and Pagnini (2016), also tested it in primary education and concluded that mindful learning strategies facilitate opportunities for creativity, critical thinking, collaboration and communication for students. They also proposed that mindful interventions could potentially promote social-emotional learning in the classroom (Davenport and Pagnini, 2016). Focusing on creativity, Yeh.et al. (2018) innovatively tested mindful learning as a way of teaching digital game-based learning of creativity. Findings revealed that this approach influenced, achievement goals, self-determination and mastery experience with increased confidence among students in their creativity competencies (Yeh.et al. (2018). While this study had many limitations, it is regarded as original and valuable in this area of instruction.

The Langerian mindful learning model does impact creativity and has potential in culinary arts education to connect students with their creativity. Drawing from research in the creative arts, from acting and music, where it has been used, it has been successful. Acting may be regarded by some as a mindful skill due to the fact that words have to be remembered, actors have to be in character and in a story. In her study of students on an acting programme, Sanders (2011) found that those who were mindful, were more present at rehearsals and on stage, had a sense of emotional freedom and of being part of a team. This indeed reinforces Langer's theory. Another study by Sarath (2013) on jazz students highlights a similar impact. While the process of improvisation naturally brings about a mindful state where the student is absorbed, fully present and forgets themselves in the process, heightened creativity resulted when mindfulness was used in the jazz studies classroom. Of interest to culinary educators is the process used by Sarath. He started the improvisation session with mindfulness and ended a performance or rehearsal with a period of silence. The improvisation that results from students is more about the sound produced rather than a self-focus, thus dissolving the ego. The students expressed how the experience connected them with the feeling of joy that music creates, self-discovery, spontaneity and freedom. According to Hass (2018, p.567) this activity framed by mindfulness 'helps students better understand their habitual behaviour, in order to create in the moment, based on what is actually happening around them, rather than relying on previously learned patterns to improvise'. It is therefore a great example of the benefit of mindful learning as proposed by Langer, and the role of silence in inspiring creativity.

Role of mindful learning in culinary education

The challenge of implementing the Langerian mindfulness approach in culinary education is not as daunting as it may initially appear. Embedded in culinary arts education, the practical components in particular, is a natural disposition to explore and create. Based on the findings by Yeh. et al. (2018) and Sanders (2011), as a creative art, improvisation in culinary arts will support food innovation, dish design and plate presentation. 'Mindful learning 'is very suited to challenge-driven exploratory tasks be they practical or theory based. As a teaching pedagogy, the success of the Langerian model is dependent on the educator's motivation and their ability to bring mindfulness into their professional practice. 'When teachers are fully present, they teach better' (Schoeberlein and Sheth, 2009). Siegel's (2010) clarification on this point is key and suggests that teaching mindfully is not the same as teaching mindfulness, however teaching mindfully needs to be grounded in the principles of mindfulness. From the educator's perspective approaching subject matter from a mindful learning perspective will enrich student reflective practice and learning. 'It moves learning from command to self-exploration and from application to reflection and learner creation' (Arnold, 2019, p.183). To enable this to happen, the educator needs to be mindful of the time allocated to tasks , the extent to which they use inductive methods of teaching, the facilitation time allowed for silence and reflection before and after tasks and facilitation of a space within the classroom environment that enables students wholly benefit from mindful learning. One suggestion for initiating a mindful approach at the beginning of a lecture is to introduce a simple breathing space such as a 'three minute breathing space' that has three stages; becoming aware of sensations in the body, gathering their attention to focus on their breath to settle, and expanding outwards to allow the breath to return to normal and easing them back to the awareness of the space around them (Barret, et al. 2019, p.49). While professional skills need to be taught with accuracy, the 'more our focus gets disrupted, the worse we do' (Goleman, 2013, p.14). To counteract this, and what Langer refers to as 'over-learning', it is proposed that the educators revisit and focus at regular intervals on elements of those skills for students in order to reflect on the process and perform the skill in a more engaged way.

While there is no published research in the application of mindful learning to culinary arts, '*The Mindful Kitchen*

Project' (Sweeney, 2019) at the Technological University of Dublin aims to investigate, instil and reflect on new skills needed to support culinary students as individuals, and as young professionals in modern kitchens'. According to Sweeney (2019), as a culinary arts education model, it is first of its kind globally and 'seeks to innovate kitchen culture for chefs using teaching and learning. 'In this project, health and wellbeing for chefs, mindful food production, creativity and chef self-care are taught though the lens of mindful learning supported by breathing techniques, qigong, and chef yoga (Sweeney and Murray, 2019). The overall aim in using this pedagogy is to empower young chefs for the present and for their professional career.

Conclusion: Chefs as mindful disruptive innovators?

Langer is a proponent of the positive benefits of mindfulness which include an increase in competence, memory, creativity and health along with a decrease in stress (Langer, 2000). In this paper, the idea of linking disruption and mindfulness might seem negative and contradictory thus counteracting the positive benefits of the approach, while, the idea of embedding disruption into the education pedagogy of culinary education may seem even more so. However, the power of mindful learning as proposed by Langer, is at the core of this argument. While mindful learning has many educational outcomes, in relation to the change caused by disruption, the author views it as a valuable tool to affect change. Innate in the approach is the development of awareness, including awareness of uncertainty and different perspectives. Developing this skill in chefs as part of their education, will naturally heighten their awareness and in turn, this can only support their professional performance. Attention such as this is valuable when faced with 'disruptors'. According to Christensen et al.'s (2015) theory of 'disruptive innovation', having an acute focus on disruption and change, is key to sustainability.

As culinary educators preparing chef students for their profession, surely our role is to empower them for 'self-care' along with the ability to adapt to disruption in their profession and become mindful, sustainable, 'disruptive innovators'?

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